FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

OMB APPROVAL

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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. *See* Instruction 1(b).

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

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1. Name and Address of Reporting Person* KIRK RANDAL J				2. Issuer Name and Ticker or Trading Symbol Synthetic Biologics, Inc. [SYN]							Relationship of Reporting Person(s) to Issuer (Check all applicable) Director X 10% Owner						
(Last) (First) (Middle)			3. Date of Earliest Transaction (Month/Day/Year) 04/01/2019								Officer (give Other (specify title below) below)						
C/O THIRD SECURITY, LLC 1881 GROVE AVENUE				4. If Amendment, Date of Original Filed (Month/Day/Year)							Individual or Joint/Group Filing (Check Applicable Line) Form filed by One Reporting Person Form filed by One Reporting Person Form filed by One Reporting Person						
(Street) RADFORD VA 24141												X Form filed by More than One Reporting Person					
(St																	
	Tabl	e I - Non-Deriv	ative S	ecu	rities /	Acquire	ed, D	Disposed of	, or B	enefici	ially	Owne	d				
1. Title of Security (Instr. 3)		2. Transaction Date (Month/Day/Year	2A. Deemed Execution Date, if any (Month/Day/Year)				4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 ar 5)			Beneficially Owned		6. Ownership Form: Direct (D) or Indirect (I)		7. Nature of Indirect Beneficial Ownership			
					Code	v	Amount	(A) or (D)	Price		Reported Transaction(s) (Instr. 3 and 4)		(1115u . 4)		(Instr.	(msu . 4)	
Common Stock		04/01/2019)			S		11,413 ⁽¹⁾	D	\$0.67	7 ⁽¹⁾ 92,159 ⁽		59 (2)			by NRM VII Holdings ⁽³⁾	
Common Stock		04/01/2019)			S		30,265(1)	D	\$0.67	7 (1)	244,402 ⁽²⁾				by Intrexon ⁽⁴⁾	
Common Stock		04/02/2019				S		3,737 ⁽¹⁾	D	\$0.66	5 ⁽¹⁾	88,422 ⁽²⁾		1		by NRM VII Holdings ⁽³⁾	
Common Stock		04/02/2019	,			S		9,909(1)	D	\$0.66	5(1)	234,493 ⁽²⁾				by Intrexon ⁽⁴⁾	
Common Stock		04/03/2019				S		26,080 ⁽¹⁾	D	\$0.65	5 ⁽¹⁾	62,342(2)		ı		by NRM VII Holdings ⁽³⁾	
Common Stock		04/03/2019				S	s 69,1		D	\$0.65	5(1)	165,332 ⁽²⁾				by Intrexon ⁽⁴⁾	
	Ta											wned		-			
Derivative Conversion Date		3A. Deemed Execution Date, if any (Month/Day/Year)	4. 5. Numb Code (Instr. 8) Deriva Securiti Acquir (A) or Disposo of (D)		6. Date Expiration (Month/II) tive lies ed ed		xercisable and n Date	7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)		8. De Se (II	erivative ecurity	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)		10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)		11. Nature of Indirect Beneficial Ownership (Instr. 4)	
			Code	V	(A) (Title	or							
	(Fin RD SECUP OVE AVEID VA (St. Stock In Stock I	(First) (MRD SECURITY, LLC OVE AVENUE D VA 2 (State) (Z Table Security (Instr. 3) Stock Stock	(First) (Middle) RD SECURITY, LLC OVE AVENUE Table I - Non-Deriv Security (Instr. 3) 2. Transaction Date (Month/Day/Year) 1 Stock 04/01/2019 1 Stock 04/02/2019 Table II - Derivat (e.g., pt Conversion or Exercise Price of Derivative (Month/Day/Year) 3. Transaction Date (Month/Day/Year) (Month/Day/Year) 3. 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Transaction Date of Origin (Month/Day/Year) Security (Instr. 3) 2. Transaction Od/01/2019 5 1. Stock 04/01/2019 5 Table II - Derivative Securities Acquired, District of Code (Instr. of Code (I	Synthetic Biologics, Inc. [SYN 3. Date of Earliest Transaction (Month/Day/Nod/1/2019 4. If Amendment, Date of Original Filed (Month/Day/Year) 4. If Amendment, Date of Original Filed (Month/Day/Year) 4. If Amendment, Date of Original Filed (Month/Day/Year) 5. It Amendment, Date of Original Filed (Month/Day/Year) 5. It Amendment, Date of Original Filed (Month/Day/Year) 6. Date Date (Month/Day/Year) 6. Date Date (Month/Day/Year) 6. Date Exercisable and Executing Date (Month/Day/Year) 7. It Amendment, Date of Original Filed (Month/Day/Year) 8. It Amendment, Date of Original Filed (Month/Day/Year) 9. I	Synthetic Biologics, Inc. [SYN] 3. Date of Earliest Transaction (Month/Day/Year) 04/01/2019 4. If Amendment, Date of Original Filed (Month/Day/Year) 4. If Amendment, Date of Original Filed (Month/Day/Year) 4. If Amendment, Date of Original Filed (Month/Day/Year) 5. 3. 3. 3. 4. 5. 5. 69,161(1) Date of Date of Date of Date (e.g., puts, calls, warrants, options, convertible security (Month/Day/Year) 3. 3. 3. 3. 3. 3. 3. 3	Synthetic Biologics, Inc., [SYN] 3. Date of Earliest Transaction (Month/Day/Year) 04/01/2019 4. If Amendment, Date of Original Filed (Month/Day/Year) 04/01/2019 4. If Amendment, Date of Original Filed (Month/Day/Year) 04/01/2019 4. If Amendment, Date of Original Filed (Month/Day/Year) 04/01/2019 24. Deemed Execution Date, if Indicated (Month/Day/Year) 05/01/2019 25. Deemed Execution Date, if Indicated (Month/Day/Year) 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019 05/01/2019	Che Synthetic Biologics Inc. [SYN]	Check all ap Direct	Synthetic Biologics, Inc. [SYN] Check all applicable Director Officer (give tittle below)	Synthetic Biologics, Inc., [SYN] Check all applicable Director Officer (give title below)	Synthetic Biologics, Inc., [SYN] Check all applicable by Director Officer (give title below) Department Check all applicable Director Officer (give title below) Department Department	Synthetic Biologics, Inc. [SYN] Check all applicable Check Ch

(Last)	(First)	(Middle)							
C/O THIRD SECURITY, LLC									
1881 GROVE AVENUE									
(Street)									
RADFORD	VA	24141							
(City)	(State)	(Zip)							
1. Name and Address of Reporting Person*									
INTREXON CORP									
(Last)	(First)	(Middle)							
C/O LEGAL DEPARTMENT									
20374 SENECA MEADOWS PARKWAY									
(Street)									
GERMANTOWN	MD	20876							
(City)	(State)	(Zip)							

Explanation of Responses:

- 1. Pursuant to a joint selling program, NRM VII Holdings I, LLC ("NRM VII Holdings") and Intrexon Corporation ("Intrexon") sold shares on a pro rata basis.
- 2. The indicated share amount is reflective of a 1:35 reverse stock split effected by the issuer on August 10, 2018.
- 3. Randal J. Kirk controls NRM VII Holdings. Shares held by this entity may be deemed to be indirectly beneficially owned (as defined under Rule 13d- 3 promulgated under the Securities Exchange Act of 1934, as amended) by Mr. Kirk. Mr. Kirk disclaims beneficial ownership of such shares, except to the extent of any pecuniary interest therein.
- 4. Randal J. Kirk, directly and through certain affiliates, is the largest shareholder of Intrexon and serves as Intrexon's Chairman of the Board and Chief Executive Officer. Mr. Kirk may therefore be deemed to have voting and dispositive power over the shares of the issuer owned by Intrexon. Shares held by Intrexon may be deemed to be indirectly beneficially owned (as defined under Rule 13d-3 promulgated under the Securities Exchange Act of 1934, as amended) by Mr. Kirk. Mr. Kirk disclaims beneficial ownership of such shares, except to the extent of any pecuniary interest therein.

/s/ Randal J. Kirk 04/03/2019
/s/ Randal J. Kirk, CEO of Intrexon Corporation 04/03/2019

** Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

- * If the form is filed by more than one reporting person, see Instruction 4 (b)(v).
- ** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

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